

ABSTRACT

A compact cooking appliance, such as a portable grill or oven, has a cooking region, a firebox disposed laterally rather than beneath the cooking region to generate heated gases, a heat exchanger disposed in heat-exchanging relationship with the heated gases, a blower or fan that circulates heated air within the cooking region, and a thermoelectric converter that derives power from the heat produced to power the blower. Instead of a heat exchanger, fuel gases may be directly vented into the cooking region. A controller may control the temperature and/or other operating conditions of the appliance. A method of cooking comprises providing a cooking region, generating heated gases, circulating heated air between a heat exchanger and the cooking region, thermoelectrically converting heat derived from the heated gases into power, and circulating the heated air using the thermoelectrically generated power. The appliance may also be battery-powered.